Part 1 of 2 6680-UR-117 10/7/2009 (aff) PSC REF#:119922

Exhibit 9.5 Docket 6680-ER-117 Witness: James B. Petersen September 15, 2008

ELECTRIC REVENUE ALLOCATION

Wisconsin Power & Light Company Docket 6680-UR-117

Schedule 1: Results of Various COSS

Table 1: COSS Results At WP&L Filed LevelsTable 2: COSS Results At Staff Adjusted Costs

Table 3: Differences in COSS A, COSS B, and COSS C Methodologies

Schedule 2: Summary of COSS Results and Methodologies

Schedule 3: WP&L Customer Class Groupings

Schedule 4: Functionalized Cost

Figure 1: Functionalized Costs at Staff Adjusted Levels of Cost

Figure 2: Staff Adjusted Functionalized Cost With Allocated General Cost

Schedule 5: Production Plant Cost Allocation Mix Impact on COSS Results

Table 1: COSS Impacts at WP&L Filed Levels of Cost

Table 2: COSS Impacts at Staff Adjusted Levels of Cost

Schedule 6: Distribution Plant Cost Allocation Mix Impact on COSS Results

Table 1: COSS Impacts at WP&L Filed Levels of Cost

Table 2: COSS Impacts at Staff Adjusted Levels of Cost

Schedule 7: Allocating Production Plant

Figure 1: Operating Expenses vs. Plant Cost

Figure 2: Idealized Utility Load Curve

Prepared By; James B. Petersen Senior Rate Engineer, PSCW September 15, 2009 Public Service Commission of Wisconsin RECEIVED: 09/15/09, 10:13:58 AM

Docket 6680-UR-117 Exhibit 9.5 Schedule 1 Page 1 of 1

Witness: James B. Petersen

WISCONSIN POWER & LIGHT COMPANY Docket 6680-UR-117 TY 2010

Table 1: COSS Results At WP&L Filed Levels

			COSS A			COSS B			COSS C		
		Present	\$'s	%		\$'s	%		\$'s	%	
Customer Group	stomer Group Revenue, \$'s		Change	Change	Change		Change	Change		Change	
Small Users	\$	531,203,968	\$ 100,214,842	18.9%	\$	95,814,988	18.0%	\$	80,427,780	15.1%	
Commercial	\$	95,496,469	\$ 3,330,874	3.5%	\$	4,067,366	4.3%	\$	9,477,004	9.9%	
Industrial	\$	304,872,659	\$ 17,867,558	5.9%	\$	21,530,919	7.1%	\$	31,508,489	10.3%	
All Classes	\$	931,573,096	\$ 121,413,273	13.0%	\$	121,413,273	13.0%	\$	121,413,273	13.0%	

Table 2: COSS Results At Staff Adjusted Costs

			COSS A			COSS B			COSS C		
Customer Group	Present Revenue, \$'s		\$'s Change	% Change		\$'s Change	% Change		\$'s Change	% Change	
Small Users	\$	534,590,305	\$ 75,246,144	14.1%	\$	67,676,558	12.7%	\$	42,513,874	8.0%	
Commercial	\$	95,496,469	\$ (1,470,673)	-1.5%	\$	(1,544,392)	-1.6%	\$	7,284,235	7.6%	
Industrial	\$	304,872,659	\$ (592,392)	-0.2%	\$	7,050,912	2.3%	\$	23,384,970	7.7%	
All Classes	\$	934,959,433	\$ 73,183,078	7.8%	\$	73,183,078	7.8%	\$	73,183,078	7.8%	

Table 3: Differences in COSS A, COSS B, and COSS C Methodologies

Production Plant Allocation

Distribution Account Allocation

	COSS A	COSS B	COSS C
n	100 % On Demand Allocators	67 % on DemandAllocators and 33 % on Energy Allocators	75 % on DemandAllocators and 25 % on Energy Allocators
n	50% on Customer Allocators and 50 % on Demand Allocators	50% on Customer Allocators and 50 % on Demand Allocators	0% on Customer Allocators 100 % on Demand Allocators

Page 1 of 2 ness: James B. Petersen

SCHEDULE 2: Summary of COSS Results and Methodologies

			Witness: James B. Pet
	WP&L COSTS - COSS A	WP&L COSTS - COSS B	WP&L COSTS - COSS C
	Small Use & Other Customers - \$631,418,809,	Small Use & Other Customers - \$627,018,955,	Small Use & Other Customers - \$611,631,747
	a 60.0% Increase	a 18.0% Increase	a 15.1% Increase
WP&L FILED	and 59.1% of all revenue.	and 59.5% of all revenue.	and 58.1% of all revenue.
OVERALL	Commercial Use Customers - \$98,827,342,	Commercial Use Customers - \$99,563,835,	Commercial Use Customers - \$104,973,473
\$1,052,986,368	a 3.5% Increase	a 4.3% Increase	a 9.9% Increase
= 13.0 percent increase	and 9.4% of all revenue.	and 9.5% of all revenue.	and 10.0% of all revenue.
At WP&L Filed Levels	Industrial Use Customers - \$322,740,217,	Industrial Use Customers - \$326,403,579,	Industrial Use Customers - \$336,381,148,
	a 5.9% Increase	a 7.1% Increase	a 10.3% Increase
	and 30.6% of all revenue.	and 31.0% of all revenue.	and 31.0% of all revenue.
	STAFF COSTS - COSS A	STAFF COSTS - COSS B	STAFF COSTS - COSS C
	Small Use & Other Customers - \$609,836,449,	Small Use & Other Customers - \$602,266,864,	Small Use & Other Customers - \$577,104,17
	a 14.1% Increase	a 12.7% Increase	a 8.0% Increase
COMMISSION STAFF	and 60.5% of all revenue.	and 59.7% of all revenue.	and 57.2% of all revenue.
ADJUSTED			
OVERALL	Commercial Use Customers - \$94,025,795,	Commercial Use Customers - \$93,952,076,	Commercial Use Customers - \$102,780,70
\$1,008,142,511	a 1.5% Decrease	a 1.6% Decrease	a 7.6% Increase
= 7.8 percent increase	and 9.3% of all revenue. Industrial Use Customers - \$304,280,267,	and 9.3% of all revenue.	and 10.2% of all revenue. Industrial Use Customers - \$328,257,629,
At Staff Adjusted Levels	a 0.2% Decrease	Industrial Use Customers - \$311,923,571, a 2.3% Increase	a 7.7% Increase
	and 30.2% of all revenue.	a 2.5% increase and 30.9% of all revenue.	a 7.7% increase and 32.6% of all revenue.
	COSS A	COSS B	COSS C
	I		
	1. Plant allocated entirely using a 12 CPKD	1. Plant allocated using a mix of	1. Plant allocated using a mix of
PRODUCTION	allocator.	demand/energy allocators.	demand/energy allocators.
COSTS	2. Cost-weighted 12 CPKD allocator does not	2. Cost-weighted 12 CPKD allocator includes	2. Cost-weighted 12 CPKD allocator include
= \$125,652,596	include interruptible loads	interruptible loads	interruptible loads
at Staff adjusted Levels	3. No other adjustment for interruptible loads	3. Separate adjustment for interruptible loads	3. Separate adjustment for interruptible loads
	4. Energy allocator used is cost-weighted	4. Energy allocator used is cost-weighted	4. Energy allocator used is cost-weighted
	5. 100% Demand/Energy Allocation Mix	5. 67% Demand / 33% Energy Allocation Mix	5. 75% Demand / 25% Energy Allocation M
	COSS A	COSS B	COSS C
FUEL COSTS = \$161,693,202 at Staff adjusted Levels	Energy allocator used is at generation level.	Energy allocator used is at generation level.	Energy allocator used is at generation leve

SCHEDULE 2: Summary of COSS Results and Methodologies

Page 2 of 2 Witness: James B. Petersen

	COSS A	COSS B	COSS C
PURCHASED POWER COSTS = \$258,688,821	1. Energy allocator used is at generation level.	Energy allocator used is at generation level.	1. Energy allocator used is at generation level.
at Staff adjusted Levels	2. Demand allocator used in weighted 12 CP	2. Demand allocator used in weighted 12 CP	2. Demand allocator used in weighted 12 CP
	COSS A	COSS B	COSS C
TRANSMISSION	1. Allocation based only on demand and energy allocators	1. Allocation based only on demand and energy allocators	1. Allocation based only on demand and energy allocators
COSTS = \$105,129,865 at Staff adjusted Levels	Demand allocator includes interruptible loads	Demand allocator includes interruptible loads	Demand allocator includes interruptible loads
	COSS A	COSS B	COSS C
DISTRIBUTION COSTS	1. 50% distribution plant line accounts allocated on weighted customer and 50.0% demand information	50% distribution plant line accounts allocated on weighted customer and 50.0% demand information	1. 100% distribution plant line accounts allocated on demand information
= \$141,380,573 at Staff adjusted Levels	2. Transmission level customer allocated only meter and services costs in distribution cost allocators.	2. Transmission level customer allocated only meter and services costs in distribution cost allocators.	2. Transmission level customer allocated only meter and services costs in distribution cost allocators.
	COSS A	COSS B	COSS C
CUSTOMER	Allocated on weighted customer information and direct assignment and demand for Conservation programs and Shared Savings	Allocated on weighted customer information and direct assignment and demand for Conservation programs and Shared Savings	Allocated on weighted customer information and direct assignment and demand for Conservation programs and Shared Savings
COSTS = \$69,874,257 at Staff adjusted Levels	2. 50-50 split of conservation costs used where 50% is assigned by class receiving program costs and 50% is assigned using a demand allocator.	2. 50-50 split of conservation costs used where 50% is assigned by class receiving program costs and 50% is assigned using a demand allocator.	2. 50-50 split of conservation costs used where 50% is assigned by class receiving program costs and 50% is assigned using a demand allocator.
	3. Act 141 costs directly allocated.	3. Act 141 costs directly allocated.	3. Act 141 costs directly allocated.
	COSS A	COSS B	COSS C
	Labor used as indirect allocator	Labor used as indirect allocator	Labor used as indirect allocator
General Costs = \$162,680,288 at Staff adjusted Levels	2. Labor allocator reflects all plant allocation decisionswhich includes excludes interruptible demand impacts on production plant and General and Common plant	2. Labor allocator reflects all plant allocation decisions including Demand/Energy allocation mix and treatment of interruptibles on production plant and General and Common plant	2. Labor allocator reflects all plant allocation decisions including Demand/Energy allocation mix and treatment of interruptibles on production plant and General and Common plant

Witness: James B. Petersen

SMALL USE & OTHER CUSTOMERS (UNDER 75 kW)

SCHEDULE 3: Customer Class Groupings

	· · · · · · · · · · · · · · · · · · ·
Small Us	e Customers Under 75 kW
Gs-1	General Service
Gs-3	General Service Time-Of-Day
Gs-4	General Service Non-Metered
<i>Gw-1</i>	General Service Time-Of-Day with Water Heating
<i>Rw-1</i>	Controlled Water Heating 17 Hr
<i>Rw-3</i>	Controlled Water Heating 11 Hr
Other Cu	stomer Tariffs
Mz-1	Traffic Signal Service
<i>Mz-3</i>	Civil Defense & Sirens
Ms-1	Streetlighting Service
Ms-2	Decorative Lighting Service
Ms-3	Area Lighting Service
NL-1	Non-Standard Lighting Service
COMMI	ERCIAL CUSTOMERS (Over 75 kW & Under 200 kW)
<i>Cg-2</i>	Commercial, Single-Phase & Three-Phase, Secondary & Primary
INDUST	RIAL CUSTOMERS (Over 200 kW)
Cp-1	Industrial Service, Primary & Secondary, Firm & Interruptible
<i>Cp-2</i>	Industrial Service, Transmission, Firm & Interruptible

Docket 6680-UR-117 Exhibit 9.5

> Schedule 4 Page 1 of 1

Witness: James B. Petersen

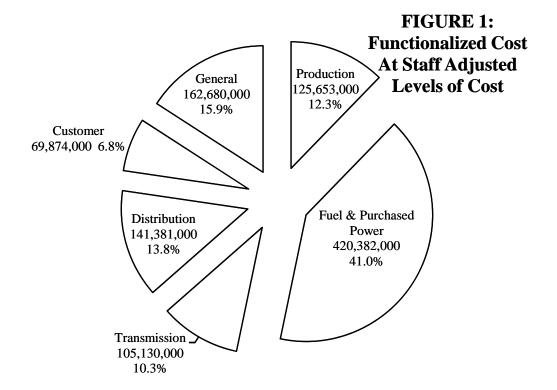


FIGURE 2: Staff Adjusted Functionalized Cost W/Allocated General Cost Customer 94,283,000 9.2% _ Production 169,546,000 16.5% Distribution 190,768,000 18.6% Fuel & Purchased Transmission Power 141,854,000 428,648,000 13.8% 41.8%

SCHEDULE 5: PRODUCTION PLANT COST ALLOCATION MIX IMPACT ON COSS RESULTS

Docket 6680-UR-117 Exhibit 9.5 Schedule 5 Page 1 of 1

Witness: James B. Petersen

Table 1: COSS AT WP&L FILED LEVELS OF COST

		COSS	S A			COSS C			
Production Allocation Mix	100/0	67/33 (2/1)	40/100	0/100	100/0	67/33 (2/1)	40/100	0/100	75/25
Distribution Allocation	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	0/100
Small User & Others	13.0%	13.0%	13.0%	13.0%	18.3%	18.0%	17.8%	17.5%	15.1%
Commercial	3.5%	3.4%	3.3%	3.2%	4.2%	4.3%	4.3%	4.3%	9.9%
Industrial	5.9%	6.3%	6.7%	7.2%	6.6%	7.4%	7.4%	8.0%	10.3%
All Classes	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%

Table 2: COSS AT STAFF ADJUSTED LEVELS OF COST

		COSS	S A			COSS B				
Production Allocation Mix	100/0	67/33 (2/1)	40/100	0/100	100/0	67/33 (2/1)	40/100	0/100	75/25	
Distribution Allocation	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	0/100	
Small User & Others	14.1%	13.6%	13.3%	12.8%	13.6%	12.7%	12.3%	11.9%	8.0%	
Commercial	-1.5%	-1.7%	-1.9%	-2.1%	-1.7%	-1.6%	-1.6%	-1.6%	7.6%	
Industrial	-0.2%	0.6%	1.3%	2.3%	0.6%	2.3%	2.9%	3.7%	7.7%	
All Classes	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	

Notes: Production Allocation Mix Ratio of Demand to Energy Allocators, i.e. 100/0 D/E = 100% on Demand and 0% on Energy.

Distribution Allocation Mix Ratio of Customer to Demand Allocators on Distribution Line Accounts, i.e. 50/50 C/E = 50% on Customer and 50% on Demand. Both COSS A and COSS B Use 50% Customer and 50 % Demand Allocators On Distribution Line Accounts

COSS C Uses a 0% Customer and 100% Demand

Docket 6680-UR-116

Exhibit 9.5 Schedule 6 Page 1 of 1

Witness: James B. Petersen

SCHEDULE 6: DISTRIBUTION PLANT COST ALLOCATION MIX IMPACT ON COSS RESULTS

Table 1: COSS AT WP&L FILED LEVELS OF COST

	COSS A				COSS B				
Distribution Allocation - C/D	100/0	50/50	0/100	100/0	50/50	0/100	0/100		
Production Allocation Mix - D/E	100/0	100/0	100/0	67/33 (2/1)	67/33 (2/1)	67/33 (2/1)	75/25		
Small User & Others	21.8%	18.9%	16.0%	21.0%	18.0%	15.1%	15.1%		
Commercial	-2.2%	3.5%	9.2%	-1.4%	4.3%	9.9%	9.9%		
Industrial	20.7%	13.7%	6.6%	3.7%	7.1%	10.4%	10.3%		
All Classes	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%		

Table 2: COSS AT STAFF ADJUSTED LEVELS OF COST

		COSS A			COSS C		
Distribution Allocation - C/D	100/0	50/50	0/100	100/0	50/50	0/100	75/25
Production Allocation Mix - D/E	100/0	100/0	100/0	67/33 (2/1)	67/33 (2/1)	67/33 (2/1)	0/100
Small User & Others	17.0%	14.0%	11.2%	17.5%	7.9%	12.7%	8.0%
Commercial	-7.1%	-1.5%	4.0%	-10.9%	-1.6%	7.6%	7.6%
Industrial	-3.5%	9.1%	15.9%	-3.2%	2.3%	7.8%	7.7%
All Classes	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%

Notes: Production Allocation Mix Ratio of Demand to Energy Allocators, i.e. 100/0 D/E = 100% on Demand and 0% on Energy.

Distribution Allocation Mix Ratio of Customer to Demand Allocators on Distribution Line Accounts,

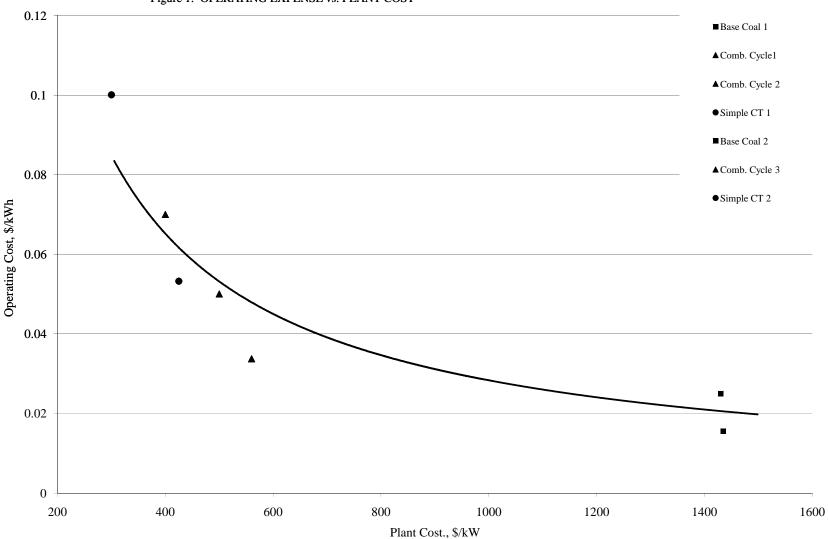
i.e. 50/50 C/E = 50% on Customer and 50% on Demand.

COSS A Uses 100% Demand and 0 % Energy Allocators On Production Plant Accounts

COSS B Uses 67% Demand and 33 % Energy Allocators On Production Plant Accounts

COSS C Uses 75% Demand and 25 % Energy Allocators On Production Plant Accounts





NOTE: Based on applications to the Commission for the construction of two baseload coal plants, three combined cycle intermediate plants, and two simple cycle combustion turbine peaker plants.

Figure 2: IDEALIZED UTILITY LOAD CURVE

